

E06 Queries on KB

16110917 Zhaoshuai Liu

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1 Problem Description

Given a KB `Restaurants.pl`, which describes the distribution of branches of 10 well-known restaurants in Guangzhou.

For example, `restaurant(ajukejiacai,2007,yuecai)` means that `ajukejiacai` was founded in 2007 and is a restaurant of `yuecai`. `branch(ajukejiacai,xintiandi)` means that `ajukejiacai` has a branch in `xintiandi`. `district(xintiandi,panyu)` means that `xintiandi` is an area of `panyu` district.

Please formulate each of the following questions as a query using Prolog's notation, pose it to Prolog, and obtain Prolog's answer:

1. What restaurants have branches in `beigang`?
2. What districts have restaurants of `yuecai` and `xiangcai`?
3. What restaurants have the `least number of branches`?
4. What `areas` have two or more restaurants?
5. Which restaurant has the longest history?
6. What restaurants have at least 10 branches?

Please `define the new relation` below using Prolog and test it.

- `sameDistrict(Restaurant1, Restaurant2)`: Restaurant1 and Restaurant2 have one or more branches in the same district.

You should write down a listing that shows the queries you submitted to Prolog, and the answer returned. Hand in a file named `E06_YourNumber.pdf`, and send it to `ai_2018@foxmail.com`

2 Codes and Results